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REMARKS

The Office Action mailed June 15, 2004 (Paper No. 12), has been carefully reviewed and Applicants appreciate the withdrawal of the rejection under 35 U.S.C. 102(e), as well as the objections to the drawings, specification and claims, as had been set forth in the previous Office Action dated October 6, 2003.

By this Amendment, claims 1-19 have been canceled and new claims 20-34 have been added. Accordingly, claims 20-34 are pending in the application. Claims 20, 26 and 33 are independent. In view of the amendments and the following remarks, favorable reconsideration of this application is respectfully requested.

The Examiner objected to the specification as containing informalities, providing clarification which Applicants appreciate. The noted informality has been corrected herein.

The Examiner rejected claims 1, 2, 10, 11 and 19 under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,005,460 to Suzuki et al. ("Suzuki"). Also under 35 U.S.C. 102(b), the Examiner rejected claims 1-3, 6-12 and 15-19 as being anticipated by U.S. Patent No. 5,826,578 to Curchod, and rejected

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claims 1, 2, 4, 11 and 13 as being anticipated by U.S. Patent No. 5,490,784 to Carmein. The Examiner also rejected claims 5 and 14 under 35 U.S.C. 103(a) as being unpatentable over Suzuki and rejected claims 6-8 and 15-17 under 35 U.S.C. 103(a) as being unpatentable over Suzuki and further in view of Curchod.

As set forth in new claims 20, 26 and 33, the present invention is directed to a system and method in which a standard video game equipment capable of displaying varying representations of a human body is operated with an apparatus that transforms user movements into control signals to obtain improved playability, the apparatus being used as a substitute for a conventional gamepad or joystick. The apparatus includes a pair of two-state elbow sensors that are positioned in respective elbow regions of the user, a pair of two-state knee sensors positioned in respective knee regions of the user, and a processing unit. Each sensor delivers one of two different signals depending on the bend in the respective joint on which they are positioned, i.e., one signal if the joint is bent and the other signal if the joint is extended. The processing unit receives the signals from the elbow and knee sensors and converts them into two-state control signals of standard format for game action on the standard video game equipment to which the

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apparatus is connected. In this way, the apparatus is fully compatible with the standard video game equipment, the latter displaying images of the user's body that correspond to the user's physical movements for improved video game play.

Suzuki is directed to a musical tone control apparatus that converts the movements of a user's fingers into musical information signals. In that the essential actions made by a person playing a musical instrument are effected by the fingers, feet and possibly the mouth (in the case of wind instruments), one skilled in the art of video games would not look to Suzuki for features useful for improving game control in an action, e.g., combat, video game. Furthermore, Suzuki does not convert the user's movement into a displayed image corresponding to that movement but, rather, assigns correspondence between a given user movement and a particular musical note, an indirect relationship as compared with that of the present invention.

In addition, the sensors provided at the elbows in Suzuki are progressive sensors (potentiometers), not two-state, on-off sensors as in the present invention, and there is nothing in Suzuki to suggest that these progressive sensors should be replaced by two-state sensors nor that they could be used for games having direct body movement representation.

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Similarly, the sensors placed on a joint in Curchod and Carmein are repeating sensors of the progressive type, i.e., sensors which sense the continuous increase of displacement so as to provide *quantitative* measurement of movement. This is unlike the simpler, more streamlined operation of the two-state sensor according to the present invention which is either "on" or "off".

Furthermore, in both Curchod and Carmein the function of the sensors disclosed therein is to provide accurate and continuous body position information, including graduated movements of the user's body within a range of movement, which requires extremely particular software and hardware. There is nothing in either of these patents that would suggest use of these complex sensor arrangements for the generation of standard control signals for standard video gaming equipment having two-state inputs for signals, as are usually generated from a joystick or gamepad buttons. Nor could either of these patents be modified to include such simple two-state sensors without negatively impacting the intended function and operation of these two systems.

In conclusion, the patents to Suzuki, Curchod and Carmein, whether taken individually or in combination, fail to disclose or suggest the particular features of the present

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invention according to which on-off sensors are placed in the elbow and knee joints to provide standard, two-state control signals for game action being played on a standard video gaming equipment.

For at least the foregoing reasons, claims 20, 26 and 33 are neither anticipated by nor obvious in view of the prior art and are patentable thereover. Claims 21-25, 27-32 and 34 are also in condition for allowance as claims properly dependent on an allowable base claim. Favorable consideration is requested.

With the RCE, this amendment and the foregoing remarks, it is respectfully submitted that the present application is in condition for allowance. Should the Examiner have any questions or comments, the Examiner is cordially invited to telephone the undersigned attorney so that the present application can receive an early Notice of Allowance.

Respectfully submitted,

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